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)4840 A

(54) Title: COLOUR COSMETIC SELECTION SYSTEM

(57) Abstract: A virtual makeover method is provided allowing a customer to select an optimum colour cosmetic palette through interaction with an Internet web site. The method includes downloading from the Internet web site a facial image which may be that of customers themselves, selection of a particular type of colour cosmetic, selection of a first colour from a palette of colours, application of the first colour to areas of the facial image and once the customer is satisfied with the colour selection, placement of an order for that cosmetic product appropriate to the area in the selected colour.

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COLOUR COSMETIC SELECTION SYSTEM

Field of the Invention

The present invention relates to a system for allowing a customer to select a colour palette of facial cosmetics and viewing their visual effect prior to actual application to the customer's face.

BACKGROUND OF THE INVENTION & PRIOR ART 10

Stay at home shopping has become quite popular. Indeed the twenty-first century will likely move a majority of purchasing from the store to the home. Virtual shopping on the Internet is already a lively phenomenon.

Some products are quite difficult to select without personal interaction with the actual product. Colour cosmetics are an excellent example. Consumers are faced with a palette of 20 colour which requires personalization and Lipstick must match with foundation. Eye shadow and lip and eyeliners must be in harmony with other colours painting the face. Until now, the only way a consumer could determine their preferred combination was through applying the actual cosmetic onto the face through trial and error.

Cosmetic customers have been aided by a number of companies in the industry that have sought to provide a means for selecting the customer's optimal colour shade. For example, Clinique and Clarion have installed computers at sales 30 counters for use by the customer. Information on colour shade, oiliness and other properties of a customer's skin are punched into the computer which then determines the company's most closely matching product.

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Custom blending is also offered by two major companies, Prescriptives (a division of Estee Lauder) and Visage (a division of Revlon). They begin a sale by manually evaluating a subject's skin colour. The salesperson is trained through the use of match cards to identify a user's matching skin foundation. Unfortunately manual systems suffer from poor reproducibility. Extensive training must also be invested in the salesperson.

10 U.S. Patent 5,622,692 (Rigg et al.) reports a system for customising a facial foundation product at point of sale to a customer. Three essential elements are present. include a skin analyser for reading skin properties, a programmable device receiving the reading and correlating it 15 with an optimal formula and a formulation machine for preparing the facial foundation product from various cosmetic chemical compositions. Technology described in this patent has commercially been embodied in Elizabeth Arden's Custom Colour system available for many years in 20 major department stores. Arden's system has been a significant advance in the art.

However, it suffers from certain deficiencies including the inability of customers to evaluate different colour cosmetics in the context of their own skin coloration and in juxtaposition to combinations of different facial makeover products. Thus, it would be desirable to have visualised a lipstick and a foundation, eye shadow and/or blush on a colour interactive basis. Especially desirable would be to evaluate the interaction of the various colour cosmetics without actually having to place these on one's own face.

Another problem of the practiced art has been the inability of a customer to render an informed buying decision far from the store. It is true that the Internet has allowed home

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purchasing of products with which the customer is well acquainted. However, where a product requires a more physical review, such as visualising colour cosmetics, these have not yet rendered themselves suitable for Internet purchase.

Accordingly, it is an advantage of the present invention to provide a system and apparatus for virtual makeover of a facial colour palette without the necessity of the customer actually having to try on each colour cosmetic prior to final selection.

Another advantage of the present invention is to provide a virtual facial colour makeover that can be done in the privacy of the home.

These and other advantages of the present invention will become more readily apparent from the following summary and detailed discussion.

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SUMMARY OF THE INVENTION

According to a first aspect, the present invention provides a virtual makeover method for furnishing a customer with colour cosmetics including:

- (i) downloading from an Internet web site a facial image;
- (ii) selecting a colour cosmetic from eye shadow, lipstick, foundation, eyeliner, mascara, lip liner, blush and combinations thereof;
- (iii) selecting a first colour from a palette of colours for applying to a specified area of the facial image; and
- (iv) placing an order for the selected cosmetic with corresponding selected colour.

BRIEF DESCRIPTION OF THE DRAWINGS

The various objects, features and advantages of the present invention will become more readily apparent from consideration of the following drawing in which:

Fig. 1 is a flow chart diagramming a program used in the system of the invention for selecting facial colour 10 cosmetic schemes;

Fig. 2 shows Screen 2 of the program;

Fig. 3 shows Pop-Up Screen 3 of the program;

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Fig. 4 shows Pop-Up Screen 4 of the program;

Fig. 5 shows Overlay 5 of the program;

20 Fig. 6 shows Screen 6 of the program;

Fig. 7 shows Overlay 7 of the program;

Fig. 8 shows Pop-Up Screen 8 of the program;

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Fig. 9 shows Pop-Up Screen 9 of the program;

Fig. 10 shows Pop-Up Screen 10 of the program;

30 Fig. 11 shows Pop-Up Screen 11 of the program;

Fig. 12 shows Pop-Up Screen 12 of the program;

Fig. 13 shows Pop-Up Screen 13 of the program;

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- Fig. 14 shows Pop-Up Screen 14 of the program;
- Fig. 15 shows Overlay Screen 15 of the program;
- 5 Fig. 16 shows Pop-Up Screen 16 through 19 of the program;
 - Fig. 17 shows Pop-Up Screen 20 of the program;
- 10 Fig. 18 shows Pop-Up Screen 21 of the program;
 - Fig. 19 shows Pop-Up Screen 22 of the program;
 - Fig. 20 shows Pop-Up Screen 23 of the program;

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- Fig. 21 shows Screen 24 of the program; and
- Fig. 22 shows Overlay 25 of the program.

20 DETAILED DESCRIPTION OF THE INVENTION

Now it has been found that virtual makeover can be accomplished on-line through an Internet web site. A visualising facial image is projected onto a monitor. The customer is then given the ability to paint various areas of the face representing locations normally to be covered by eye shadow, lipstick, foundation, eyeliner, mascara and the like. These different areas of the face can be painted with a variety of different colours from the cosmetic product palette until an optimum combination is reached satisfactory to a look which the customer desires. A final step of the method involves placement of an order with a vendor for cosmetic products with the chosen colour. No longer does a customer actually need to try the product on his or her own

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face. A very rapid and clean evaluation can occur through use of the visualised model face.

As an optional feature, the customer may input a measurement of their actual facial skin colour. Such measurement can occur through use of a home video camera that transmits digitalized information to the web site. Measured true skin colour values may also be obtained by the customer visiting a point-of-sale location (e.g. store) where such measurements can be taken by a vendor representative and fed into the web site database for future use at the customer's home location.

Advantageously the facial image appearing on the web site is initially coloured with a shade representing the customer's actual measured shade. Colours for lips and eye areas can then be manipulated through the computer program and visualised on the facial image for selection of the most desired combination. Particularly preferred is display of a facial image corresponding exactly to that of the customer based on the earlier digitalized photographic input of the customer's face.

Fig. 1 is a flow chart of a program according to one embodiment of this invention. After the opening screen, a user is introduced to Screen 2 known as the 'customer session'. Client information is obtained via this screen through either a swipe card, entry via a keyboard or from a database. The screen remains active (buttons are available) when overlays are displayed. Fig. 1 provides a view of Screen 2.

A Pop-up Screen 3 next appears with comments and client information to prompt follow-up calls. This screen can be used for contacting the client to remind them to visit the

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store when their cosmetic supply may be low. Fig. 3 illustrates the screen.

Pop-up Screen 4 covering 'Maintenance' is then available for appearance. This pop-up screen has options for calibration and data handling. Fig. 4 sets forth the screen.

Other information is collected with Overlay Screen 5. The Overlay screen selects/changes information about skin, 10 beauty habits, type and brand of products used. Overlay Screens 2 and the buttons on Screen 2 remain active. Fig. 5 describes Overlay Screen 5.

Screen 6 provides a 'Consultant's Choice'. This screen shows effects of colour palette, using client's skin colour. Information on the client's skin colour is obtained through application of a hand-held spectrophotometer against areas of the face not likely to be covered by makeup. These areas include the neck and under chin areas. The cosmetic 'look' can either be based on skin colour (skin recommendation), lipstick colour (colour family), or a specific look. Depending on selections, a list of typically five 'looks' is created, and selecting (another look) displays next look in the series. Fig. 6 sets forth Screen 6.

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Purchase information is achieved in Overlay Screen 7. This screen with previous and current purchase information (overlay to screen 2) is ordered by visit date. It contains information from up to the last five visits. Purchase information includes number, product type, product name and product number. Fig. 7 sets forth the purchase information screen.

Pop-up Screen 8 measures skin colour. It consists of a 35 series of screens to assist an adviser with colour

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measurement. This session is repeated three times. Fig. 8 depicts the Pop-up Screen 8.

Pop-up Screen 9 serves to obtain information for a new store. It is used by the installation team to correctly set up the store-specific parameters. Fig. 9 describes the Pop-up Screen 9.

Collection of data for the main office is found in Pop-up Screen 10. Data is placed in a store's outbox, and can then be transferred in three ways. These include: (1) remote computer can dial in and retrieve file from outbox; (2) transfer information to a server automatically using PC-anywhere script; and/or (3) copied to floppy disk and mailed to central site. Fig. 10 illustrates the Pop-up Screen 10.

Pop-up Screen 11 copies data from other stores. It can accept data in two ways. These include: (1) update using floppy supply by the main office; or (2) use of PC/Anywhere script to retrieve update file from main office outbox. Fig. 11 illustrates the Pop-up Screen 11.

Pop-up Screen 12 allows selection of a colour lipstick family. The customer advisor can either enter a specific lipstick number, or choose a colour family, then choose a colour from the family. The active colour palette will consist of individual palettes that contain that lipstick. The advisor can also enter a specific look (which can be either from a previous visit, or any of the available looks in the palette). Fig. 12 describes the pop-up Screen 12.

Pop-up Screen 13 allows selection of lipstick from a colour family (as selected from Pop-up Screen 12). If the lipstick is also in the palette recommendation based on skin tone,

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the colour is put first in the list, and (expert fit) is added to the name. Fig. 13 describes the Pop-up Screen 13.

Pop-up 14 shows product selections (e.g. treatments in cosmetic colours) made during the present session. Product selections can be made during colour viewing (Screen 6), treatment/product options (Overlay 24) or Recommended Foundation (Pop-up Screen 20). There also is a display of recommended looks. Fig. 14 describes the Pop-up Screen 14.

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Overlay Screen 15 is used to provide a snapshot of the type of customer. For detail purchase history, Overlay 7 provides the purchase information. Included in this screen are key purchase properties, group by type, over the past twelve months. It is automatically displayed for each customer. Fig. 15 lists the Overlay Screen 15.

Pop-up Screen 16 is a probe for calibration/routine and for messages to calibrate probe. Fig. 16 details the Pop-up Screens 16-19.

Pop-up Screen 20 is used to recommend the best foundation product combination based on skin colour and product preferences. Fig. 17 details the Pop-up Screen 20.

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Pop-up Screen 21 is an advanced data management module. This is used by the main office. Fig. 18 details the Pop-up Screen 21.

30 Pop-up Screen 22 relates to language selection. Fig. 19 details Pop-up Screen 22.

Pop-up Screen 23 is used to locate and activate a client. If this is a new client, the 'new' button is clicked to

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create the new client file. Fig. 20 details Pop-up Screen 23.

Screen 24 details treatment/colour/fragrance options showing 5 all the option products. Fig. 21 details Screen 24.

Overlay 25 focuses on skin colour analysis allowing selection of shade and tone. Fig. 22 details the Overlay 25.

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The foregoing description illustrates selected embodiments of the present invention. In light thereof variations and modifications will be suggested to one skilled in the art, all of which are within the scope of this invention.

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CLAIMS:

- 1. A virtual makeover method for furnishing a customer with colour cosmetics, the method comprising:
- 5 (i) downloading from an Internet web site a facial image;
 - (ii) selecting a colour cosmetic from eye shadow, lipstick, foundation, eyeliner, mascara, lip liner, blush and combinations thereof;
- (iii) selecting a first colour from a palette of colours for applying to a specified area of the facial image; and
 - (iv) placing an order for the selected cosmetic with corresponding selected colour.

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- 2. The method according to claim 1 wherein the facial image is painted with the customer's own natural skin colour.
- 3. The method according to claim 2 wherein the customer's own natural skin colour has been stored as digitalized information accessible to the web site, the digitalized information having been obtained through measurement of a customer's actual skin.
- 25 4. The method according to claim 3 wherein measurement of a customer's actual skin occurs at the customer's home through use of a camera with capability of digitalizing information taken from measurement of the customer's skin and a mechanism for transmitting the digitalized information to a central memory controlling the web site.

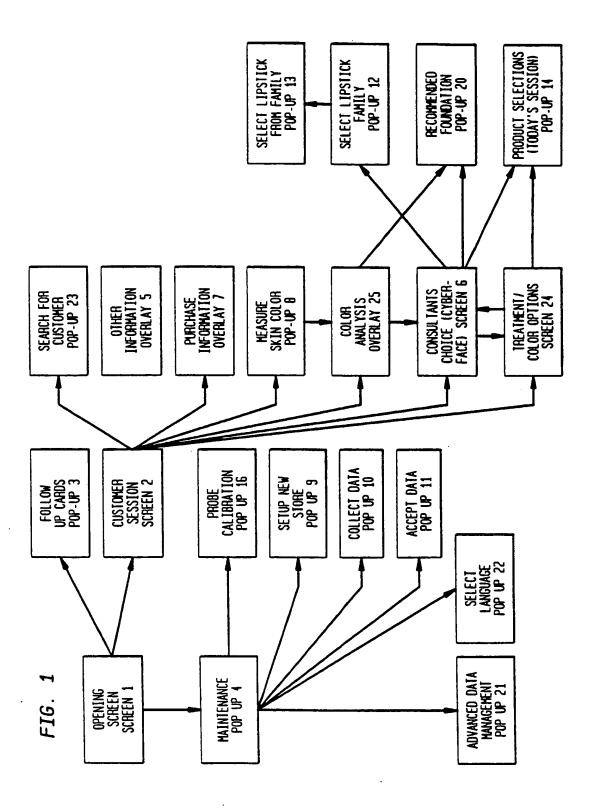


FIG. 2

Personal Information Name Last Name Address City Zip Code Profession	State Promotions State Promotions	•
(Overlay	area - not to scale)	[OTHER INFORMATION] [PURCHASE HISTORY] [PURCHASE INFORMATION] [PRODUCT OPTIONS] [MEASURE SKIN COLOR] [COLOR ANALYSIS] [SHOW COLOR]

FIG. 3

Customer follow Wi	up cards th clients information	1	
	List of Names	Information On Selected Customer	
		[] CALL COMPLETE	
		[CLOSE]	

FIG. 4

MAINTENANCE

[CALIBRATE SKIN READER]
[LANGUAGE]
[SET UP NEW STORE]
[COLLECT DATA FOR MAIN OFFICE]
[ACCEPT DATA FROM LOCAL STORES]
[ADVANCED DATA MANAGEMENT]
[CLOSE]

FIG. 5

			OTHER INFOR	MATION		
Skin Ty	oe o	Age Profile	Beauty Habits	Fragrance	Other Brands	
⊕ Sensi Normal Normal Dry Oily	to dry	15-20 20-30 30-40 40-50 50+	Make-up Cleanser/Toner Moisturizer Special Treat. Sunscreens Body Products	More than one	Biotherm Channel Clarins Clinique Dior Estee Lauder H. Rubenstein Lancaster	
	Spec Prefe	cial Preference ers fragrance	ces of Needs: free products		Lancome Shiseido YSL Other	(Accept

FIG. 6

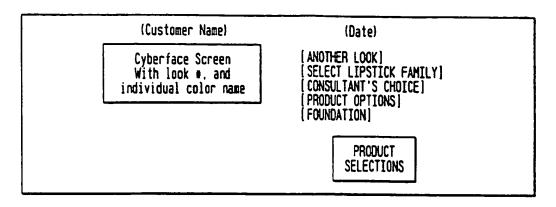


FIG. 7

	Purchase	Information	
Today	1	JANE DOE	
(1) Lipstick	125	Purchased	
(1) Hydrolight	Bisque	Recommended	
(1) Mousse	Bisque	Not Appropriate	[Recommended]
			[Purchase]
			[Not Appropriate]
Date	905	JANE DOE	[Remove]
(2) Ceramide Complex		Sampled	
Today			\neg
Look 001	Plums	Recommended	7 .
Look 003	Reds	Recommended	
Look 004	Naturals	Recommended	

FIG. 8

	MEASURE SKIN	N WITH CO	OLOR READER		
PR	ESS MEASURE TO	RECORD C	OLOR FROM P	READER	
	OR ENTER L. A.	B VALUE	S FROM REMO)TE	
	լ. լ. լ.	A= A= A=	8= 8= 8=		
C	OLOR READER IDE	NTIFICAT	ION:		
	Foundation (Color Ma	tch:	[MEASURE] [ACCEPT] [CANCEL]	

FIG. 9

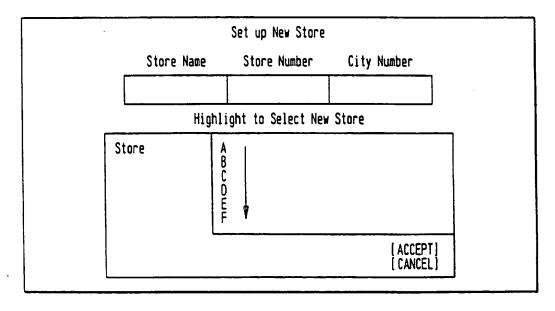


FIG. 10

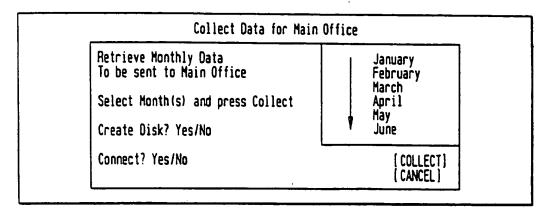


FIG. 11

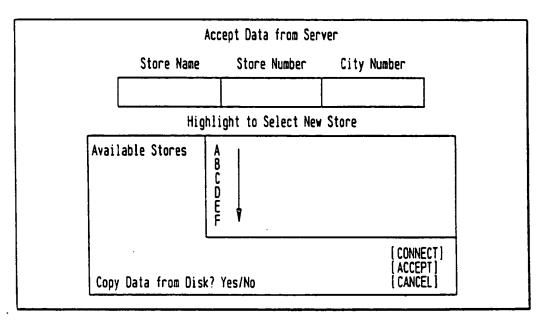


FIG. 12

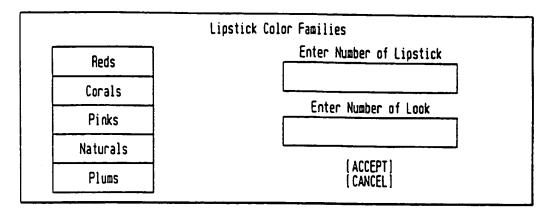


FIG. 13

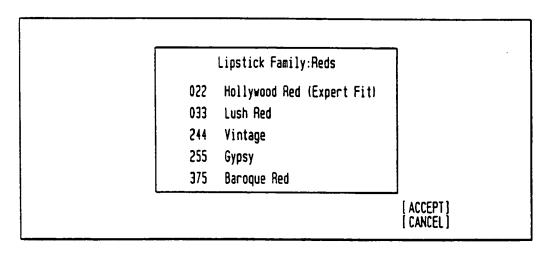


FIG. 14

	Today	y's Product Selections	
(#) Product Type ⊗ (1)Lipstick ⊗ (2)Hydrolight ⊗ (1)Housse ⊗ Look 321 ⊗ Look 496	Color 121 Bisque Bisque Reds Plums	Recommended Purchased Recommended Recommended Recommended	[Recommended] [Purchase] [Sample] [Not Appropriate] [Remove] [Print] [Accept]

FIG. 15

Last purchase:	Date	Jane Doe
Total purchases:	2 (Last)	12 (Past Year)
SkinCare (3)		
⊗(4) Ceramide Capsules⊗(3) Millenium Cream⊗(2) Perfection Cream	30 Jan 30 Nov 30 Nov	Purchased Purchased Purchased
Color (2)		
⊗(1) Flawless Finish (121) ⊗(1) Exceptional Lipstick (906)	30 Jan 30 Dec	Purchased Purchased
Fragrance (1)		
⊗(1) Sunflowers ⊗(1) Red Door	30 Oct 30 Sep	Purchased Purchased
Fragrance (1)		
 ⊗ Red Door ⊗ Exceptional Lipstick ⊗ Perfection Cream 	30 Jan 30 Jan 30 Jan	Sampled Recommended Non-Appropriate

⊗ - Denotes product type icon

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_	Continue		Enter	
	Probe calibrated, OK to continue?			
	Stop!	Enter	Press (Enter) when ready!	
	Reader display should read Press (Enter) when ready! To record calibration color	Press (Enter) when ready!	Reader display should read	Warning: Skin Reader not
	Press button on color reader	Place Color Reader on the White Plate	Turn color reader off and	Probe Calibration Probe not calibrated!
	Ready to Read Color File Color Reading in Progress	Ready to Read Color Tile	Switch to Set Cal. Plate	Probe Calibration
	Pop-up 19	Pop-up 18	Pop-up 17	Pop-up 16

FIG. 17

Product	Color	
Mousse	234	[Recommend]
Hydrolight	123	[Purchase]
Pressed Powder	Medium 2	[Sample]
		[Accept]

FIG. 18

Update Doors Update Product List	Yes Yes	No No	
Export new Clients	Yes	No	[Import Update File] [Create Update File]
Clean returns database Delete entries more than	Yes 3 months	No	(Print Returns)
petere curi tea moi e rugu	6 months		[Connect]
	9 months 12 months		[Close]

FIG. 19

Language Selection	
[English]	·
[Spanish]	
[French]	
	·

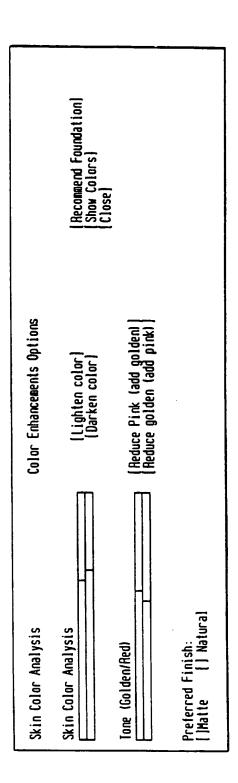
FIG. 20

	Search for Customer
Name:	
List of Names	Information On Selected Customer
	[ACCEPT] [NEW CUSTOMER] [CANCEL]

FIG. 21

	Treatment/Color P	roduct Options
Product	Color	[]Treatment []Color
Skin Illuminating Comp Millenium Night Millenium Energist	lex	[]Fragrance [Recommend] [Purchase]
		[Sample] [Not appropriate]
Advertiser Video	nent	[What's New]
		[ACCEPT] [CANCEL]

FIG. 22



INTERNATIONAL SEARCH REPORT

Intern nel Application No PCT/EP 00/05459

,			101727 00,	705459
A. CLASSI IPC 7	FIGATION OF SUBJECT MATTER G06T11/00 A45D44/00			
According to	o International Patent Classification (IPC) or to both national classification	ification and IPC		
	SEARCHED			
IPC 7	ocumentation searched (classification system followed by classific GO6T A45D			
	tion searched other than minimum documentation to the extent the			
	tata base consulted during the international search (name of data ta, EPO-Internal, IBM-TDB, INSPEC	base and, where practica	il search terms used	n
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT			
Calegory *	Citation of document, with indication, where appropriate, of the	relevant passages		Relevant to claim No.
E	EP 1 030 267 A (DRDC LIMITED ET 23 August 2000 (2000-08-23) the whole document	AL.)		1-4
X	& WO 98 39735 A (SCALAR CORP ET 11 September 1998 (1998-09-11) the whole document	AL.)		1-4
X	WO 99 23609 A (V.O.F. HEADSCANN 14 May 1999 (1999-05-14) page 5, line 12 - line 23 page 7, line 22 -page 9, line 1	·		1-4
A	US 5 478 238 A (GOURTOU ET AL.) 26 December 1995 (1995-12-26) the whole document	-/		1-4
	ther documents are listed in the continuation of box C.	X Patent family	members are listed	in annex.
'A' docum	ategories of cited documents: nent defining the general state of the art which is not idered to be of particular relevance		blished after the inte nd not in conflict with nd the principle or the	the application but
'E' earlier filing	document but published on or after the international date	"X" document of partic	cular relevance; the o	laimed invention
which	nent which may throw doubts on priority claim(s) or n is cited to establish the publication date of another		ive step when the do	cument is taken alone
O docum	on or other special reason (as specified) nent referring to an oral disclosure, use, exhibition or	cannot be conside document is com	lered to involve an in- bined with one or mo	ventive step when the ore other such docu-
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2	23 November 2000	01/12/2	2000	
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INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT Category • Citation of document with indicate		PCT/EP 00/05459		
	Citation of document, with indication, where appropriate, of the relevant passages			
A		Retevant to claim No.		
•	US 5 495 338 A (GOURIOU ET AL.) 27 February 1996 (1996-02-27) the whole document	1-4		
A	DE 34 19 568 A (GEORG KARL GEKA-BRUSH GMBH) 28 November 1985 (1985-11-28) the whole document	1-4		
A	US 4 539 585 A (SPACKOVA ET AL.) 3 September 1985 (1985-09-03) the whole document	1-4		
A	EP 0 226 959 A (HORIKITA) 1 July 1987 (1987-07-01) the whole document	1-4		
	nustion of second sheet) (July 1992)			

INTERNATIONAL SEARCH REPORT

Information on patent family members

Intern anal Application No PCT/EP 00/05459

	tent document in search report		Publication date	Patent far member		Publication date
ΕP	1030267	A	23-08-2000	JP 1025	5066 A	25-09-1998
				_	19735 A	11-09-1998
WO	9923609	A	14-05-1999		7397 C	12-05-1999
					7499 A	24-05-1999
					3176 A	22-08-2000
				EP 102	1797 A	26-07-2000
US	5478238	Α	26-12-1995		8261 A	15-02-1995
					6134 A	09-02-1995
					1239 D	15-02-1996
					11239 T	14-08-1996
					5741 T	01-06-1996
					3727 A	09-02-1995
					36214 B	06-12-1999
					5078 T	04-06-1996
				US 579	7750 A	25-08-1998
US	5495338	Α	27-02-1996		0822 A	12-11-1993
					84985 A	11-11-1993
					1129 D	08-02-1996
					9291 A	10-11-1993
					6339 A	05-04-1995
					1794 A	11-11-1993
					6504 T	20-07-1995
					1129 T	04-07-1996
				ES 208	35734 T	01-06-1996
DE	3419568	Α	28-11-1985	NONE		
US	4539585	A	03-09-1985	NONE		
EP	226959	Α	01-07-1987	JP 6214	14280 A	27-06-1987
				CA 126	1967 A	26-09-1989